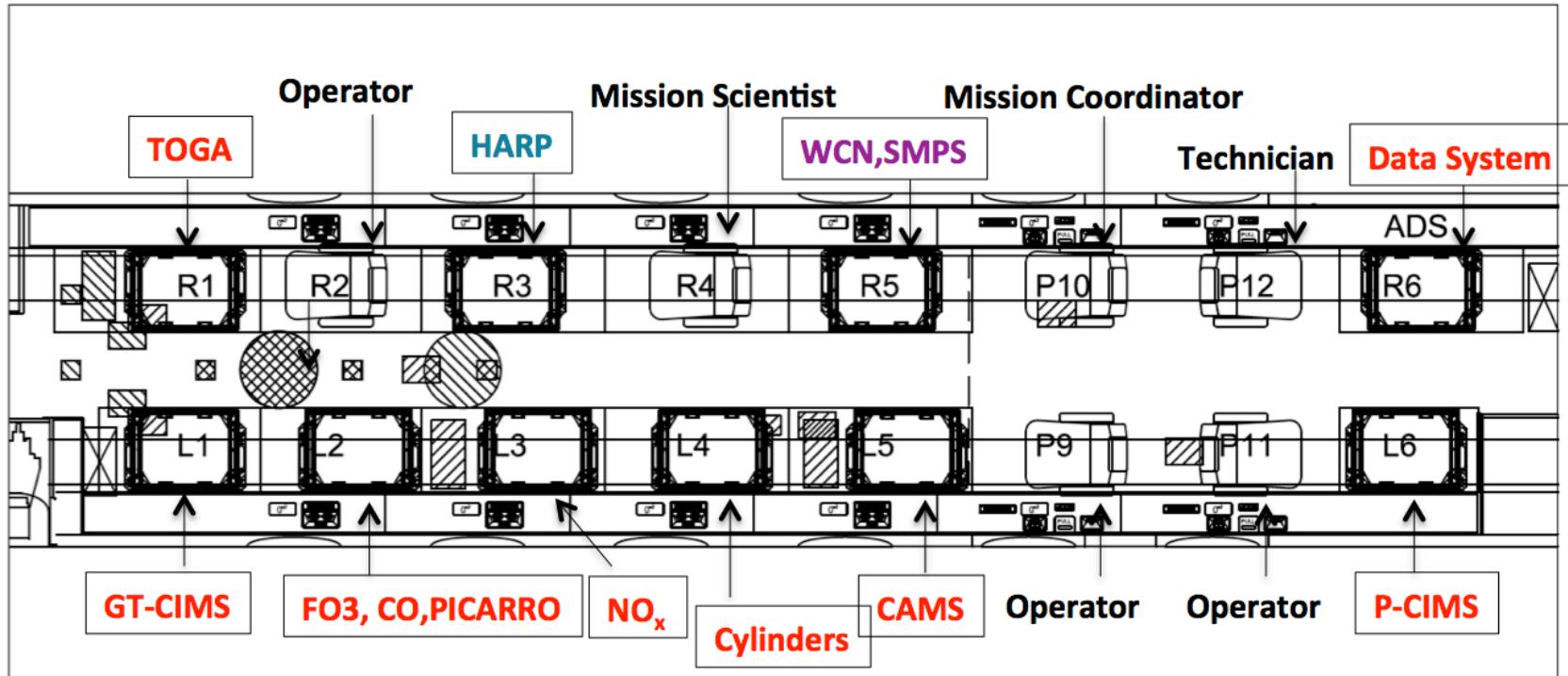


# GV SEAC4RS Payload Table

| Investigator/Institution | Instrument       | Measurements  | Method, data rate, resolution                    |
|--------------------------|------------------|---|--|
| <b>State parameters</b>  |                  |   |  |
| Schanot/NCAR RAF         | State Parameters | Lat/Lon, P, T, 3D wind                                      | Various, 1-25 Hz                                 |
| Beaton/NCAR RAF          | Digital Video    | forward view  | Digital video                                    |
| <b>Microphysics</b>      |                  |   |  |
| Rogers/NCAR RAF          | CDP              | cloud hydrometeors  | Spectrometer, 1 Hz, 2 - 50 $\mu\text{m}$ ,       |
| Rogers/NCAR RAF          | 2D-C             | cloud hydrometeors  | Particle Imaging, 1 Hz, 25-1600 $\mu\text{m}$ ,  |
| Jensen/NCAR RAF          | 3V-CPI           | cloud hydrometeors  | Particle Imaging, 1Hz, 2.3 $\mu\text{m}$         |
| Rogers/NCAR RAF          | UHSAS            | aerosols  | Spectrometer, 1-10 Hz, 0.075 - 1 $\mu\text{m}$ , |
| Rogers/NCAR RAF          | WCN              | aerosols  | Optical counter, 0.01 - 3 $\mu\text{m}$ ,        |
| Smith/NCAR ACD           | SMPS             | aerosol size distributions                                  | Scanning Mobility Particle Sizer, 60 s           |
| Avallone/CU              | Total Water TDL  | total water   | Closed-path Laser Hygrometer, 1 Hz, 10%          |
| Zondlo/Princeton         | VCSEL            | water vapor   | Laser Hygrometer, 1-25 Hz                        |
| <b>Chemistry</b>         |                  |   |  |
| Weinheimer/NCAR ACD      | NO <sub>x</sub>  | NO, NO <sub>2</sub>   | Chemiluminescence, 1 Hz                          |
| Weinheimer/NCAR ACD      | Fast Ozone       | O <sub>3</sub>  | Chemiluminescence, 1-5 Hz                        |
| Campos/NCAR ACD          | VUV CO           | CO  | Vacuum UV resonance fluorescence, 1 Hz           |
| Flocke/NCAR ACD          | Picarro          | CO <sub>2</sub> , CH <sub>4</sub>                           | Spectroscopy,1-5 Hz                              |
| Apel/NCAR ACD            | TOGA             | NMHCs, OVOCs  | Gas chromatograph/mass spectrometer, 1-3 min.    |
| Huey/GT                  | GT-CIMS          | HNO <sub>3</sub> , HNO <sub>4</sub> , SO <sub>2</sub> , HCl | Chemical Ionization Mass Spectrometer, 1-2 Hz    |
| Heikes/URI               | P-CIMS           | H <sub>2</sub> O <sub>2</sub> , CH <sub>3</sub> OOH         | Chemical Ionization Mass Spectrometer, 1-10 Hz   |
| Fried/NCAR EOL           | CAMS             | H <sub>2</sub> CO, HCOOH                                    | Spectrometer, 1 Hz                               |
| <b>Radiation</b>         |                  |   |  |
| Hall /NCAR ACD           | HARP             | spectral actinic flux,<br>spectral irradiance               | Spectroradiometers, 1 Hz                         |

# GV SEAC4RS Payload Cabin Layout



## Wing Pod Sensors

